



## Scheme of Valuation/Answer Key

(Scheme of evaluation (marks in brackets) and answers of problems/key)

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY  
THIRD SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019

**Course Code: CE205**

**Course Name: ENGINEERING GEOLOGY**

Max. Marks: 100

Duration: 3 Hours

### PART A

*Answer any two full questions, each carries 15 marks.*

			Marks
1	a)	Definition of weathering (2) brief description on mechanical weathering & agents (5)	(7)
	b)	Any two laboratory test with brief description (2x2)	(4)
	c)	Sketch of soil profile (2) Description (2)	(4)
2	a)	Definition of aquifer (1) Classification of aquifers (4)	(5)
	b)	Porosity (1.5) Permeability (1.5) Relate (2)	(5)
	c)	Introduction (1) Any three control methods (3) sketches (1)	(5)
3	a)	Each class (alluvial, aeolian, glacial, colluvial...) 3 mark (3x3=9)	(9)
	b)	Any four relevant points (1.5x4=6)	(6)

### PART B

*Answer any two full questions, each carries 15 marks.*

4	a)	Each property 3 marks (2x3=6)	(6)
	b)	Properties of: (i) Calcite (3) (ii) Biotite (3) (iii) Gypsum (3)	(9)
5	a)	Each rock feature 3 marks (2x3=6)	(6)
	b)	Origin of igneous rock (4.5) Sedimentary rock (4.5)	(9)
6	a)	Description of earthquake waves (3) Help to study the interior of earth (3)	(6)
	b)	Properties of (i) Basalt (4.5) (ii) Marble (4.5)	(9)

### PART C

*Answer any two full questions, each carries 20 marks.*

7	a)	Strike (2) Dip (2) Figures (2)	(6)
	b)	Each geological factor (lithology, structure, groundwater, rheology...) 4 marks (4x2=8)	(8)
	c)	Formation of Folds (2) Significance of fold in site selection of dam (4)	(6)

8	a)	Structure –fold (2.5 marks), Strike N60 <sup>0</sup> or N240 <sup>0</sup> - (2.5 marks)	(10)
	b)	Definition -1 mark, Diagram of contour (4 circular contours of 20, 40, 60 & 40 from periphery inwards) -2 mark	
	c)	Soil erosion (1) Causes (4)	(10)
9	a)	Fault (2 mark), parts with diagram (4marks), comparison with joint (4marks).	(10)
	b)	Each mass wasting type 2 marks (2x3=6)	(6)
	c)	Any two causes of landslides, each cause 2 marks	(4)
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